Owners manual EDS II

BMW R1150 GS

ENGLISH

03 - 2009 / 5300.0103. / 11.06.Y0.03/G11

Contents **Page**

Introduction	3
Contents EDS II	4
Removing standard front shock absorber	7
Installing WP EDS front shock absorber	12
Removing standard rear shock absorber	14
Installing WP EDS rear shock absorber	18
Installing adjustment display	21
Wiring and connections	22
Adjustments	26
Notes	28

General Comments

Firstly, congratulations on purchasing this unique WP Suspension product!! This EDS suspension system provides you with the possibility to optimally adjust your suspension to all conditions simply at the press of a button.

We would like to draw your attention to the following:

Read this manual carefully to ensure correct use and installation of the EDS system! ⚠

These instructions assume that there are no extra accessories built in or on to your motorcycle!

The EDS system can only function optimally if the battery is in good condition!

The regulator for the spring preload and both shock absorbers are under high nitrogen pressure, incorrect use or handling can lead to serious injury. Service or repairs should only be carried out by an authorized WP Suspension representative.

Tighten the nuts and bolts to the correct torque. Consult your BMW instructions.

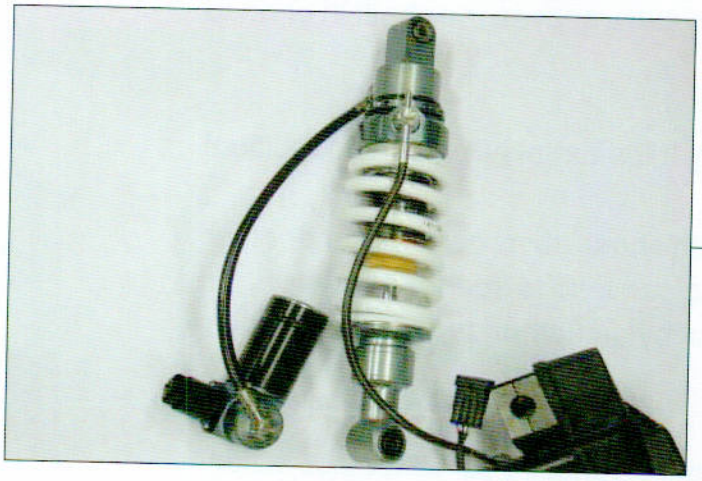
- Ensure the correct safety measures at all times.
- Make sure the motorcycle is on a flat and stable surface.
- Park the motorcycle on the centre standard when installing the system.
- The motorcycle should be clean and dry.
- The motorcycle must be sufficiently cooled down.
- Use only proper, clean tools.
- Ensure that the parts to be installed are clean.
- Before (de-) mounting even before standard parts, consult the BMW service and/or repair instruction leaflet.
- The help of a second pair of hands may be necessary.
- When mentioning left or right, the manual always means as seen into driving direction.
- In case of unexpected problems contact your WP Suspension importer!

⚠ = Caution! Extra care to be taken!

Owners manual

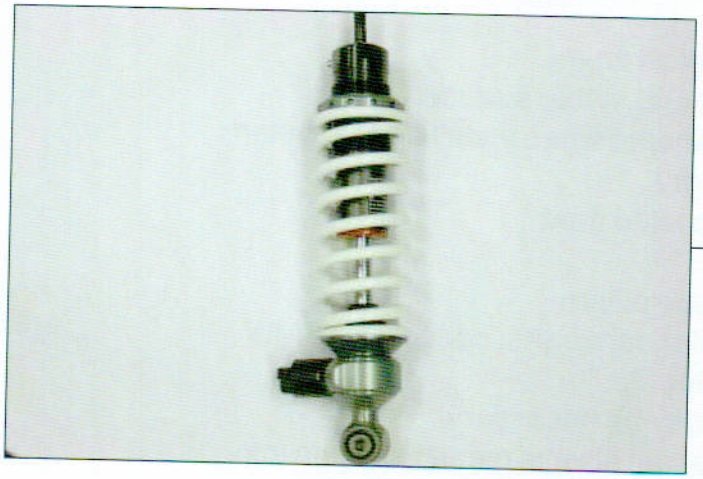
1x Owners manual.

Article no.: 5300.0103.



1x Shock absorber rear.

Article no.: 11.06.T8.34/G11



1x Shock absorber front.

Article no.: 13.06.T9.09/G11

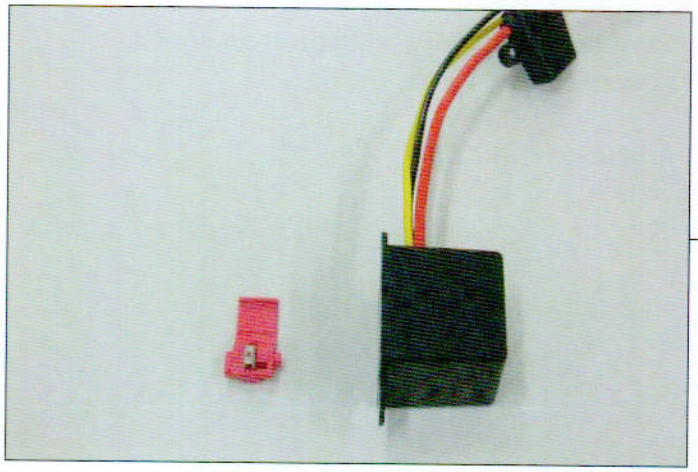
1x Control unit.

Article no.: 4618.0967.

1x Adjustment display.
1x Warning sticker.

Article no.: 4618.0616S.
Article no.: 5300.0093.

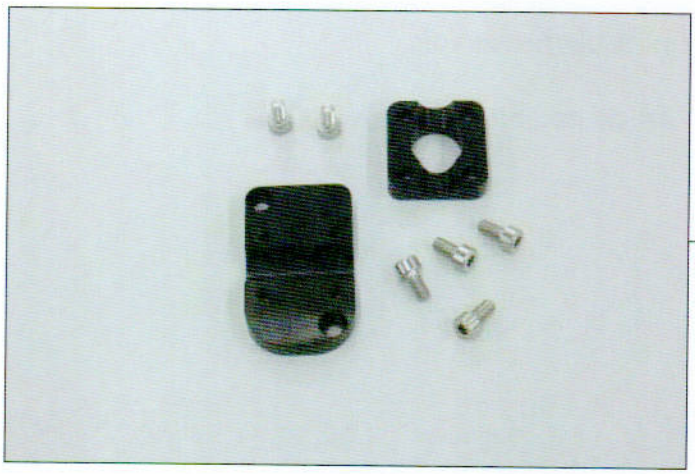
Stick the warning sticker in a conspicuous place so that it is clearly visible!



1x Relais unit with 14A fuse.
1x Connector Scotchlok 558.

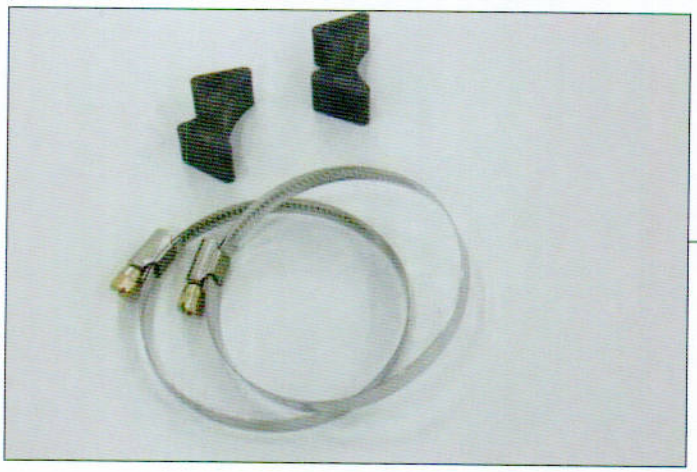
Article no.: 4618.0972.

Relais unit is already connected to the control unit!



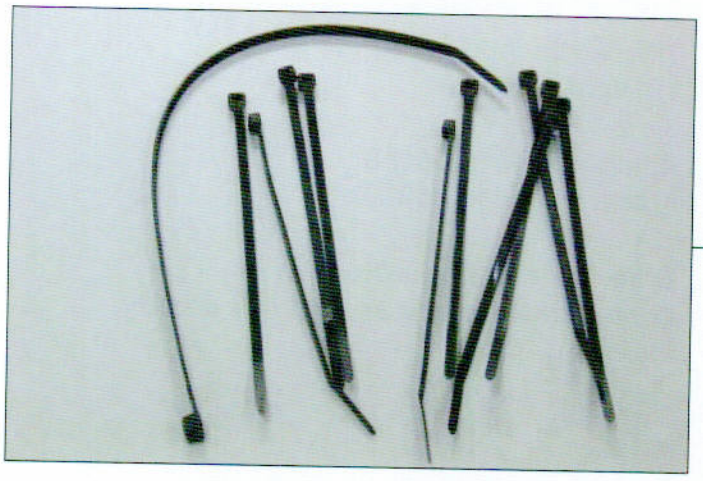
1x Bracket d12.
1x Bracket d12 clamp.
6x Socket-head srew M5x10.

Article no.: 4618.0613.
Article no.: 4618.0614.
Article no.: 1446.0033.



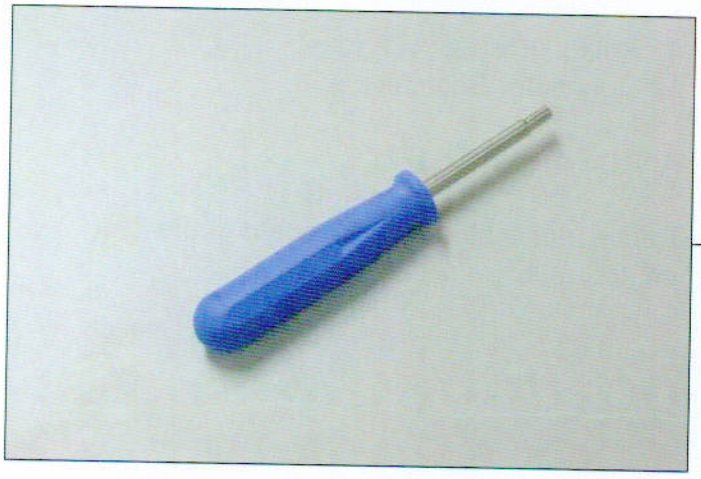
2x Clamping ring reservoir.
2x Support reservoir.

Article no.: 4681.1279.
Article no.: 4681.0871.



10x Cable binder 140x3.6.
1x Cable binder 300x4.8.

Article no.: 4618.0596.
Article no.: 4618.0630.



1x Adjustment tool spring preload shock absorber front.

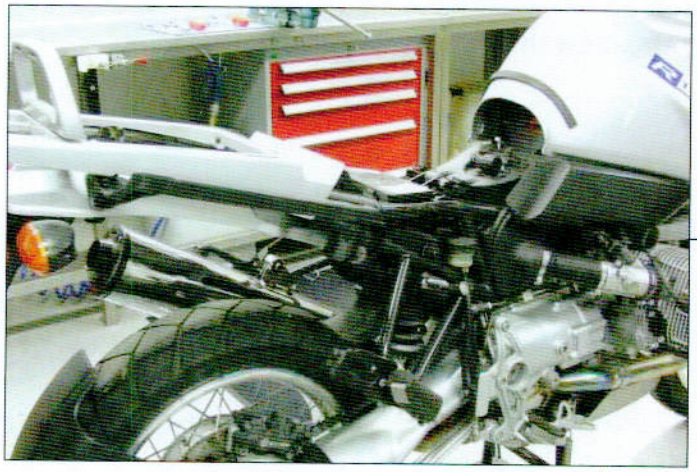
Article no.: T17.009S

1x Sticker reservoir.

Article no.: 5200.0044.

Removing standard front shock absorber

Park the motorcycle on the centre stand.

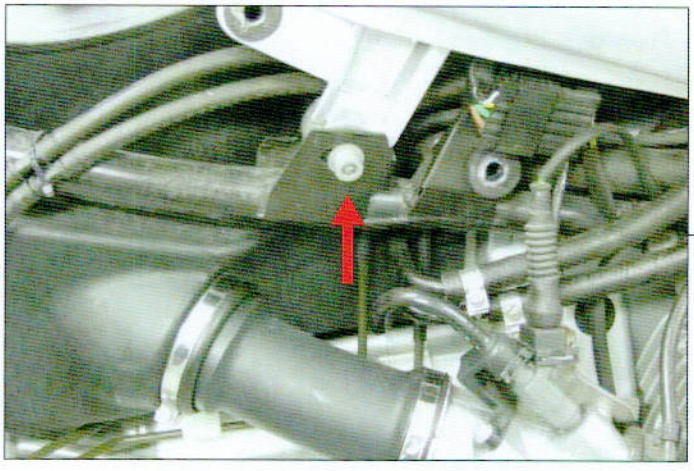


Remove the seat.

Disconnect the battery, negative (black) lead first.

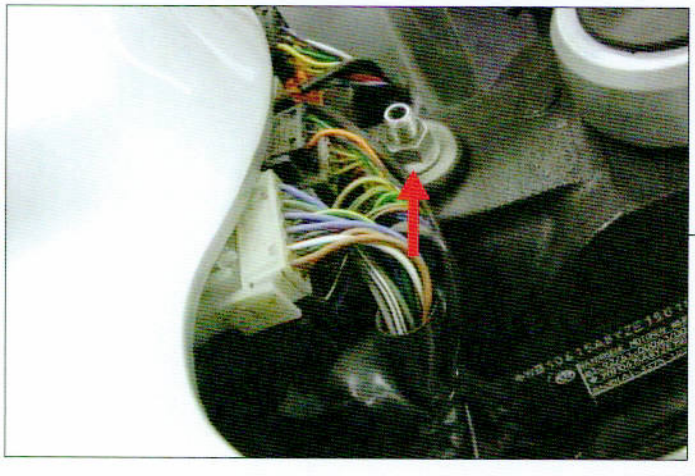
1. Remove the cover panels.

2.



Unscrew the nut and bolt of the fuel tank.

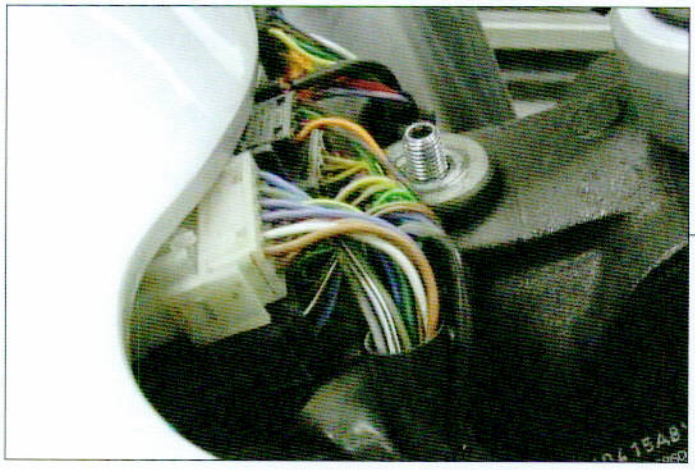
Carefully slide the fuel tank to the back until...



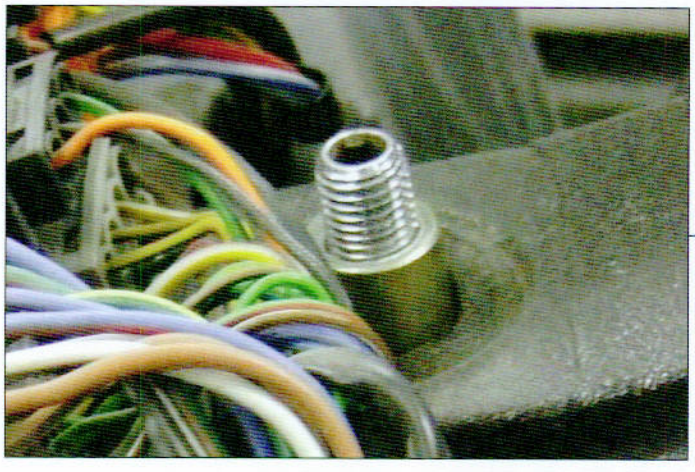
...the nut on the threaded end of the shock absorber is accessible!

Support the rear wheel.

Unscrew the nut of the threaded end.
In case of the threaded end turning together with the nut, fix it with an Allenkey in the hexagon socket of the threaded end.



Remove the nut.

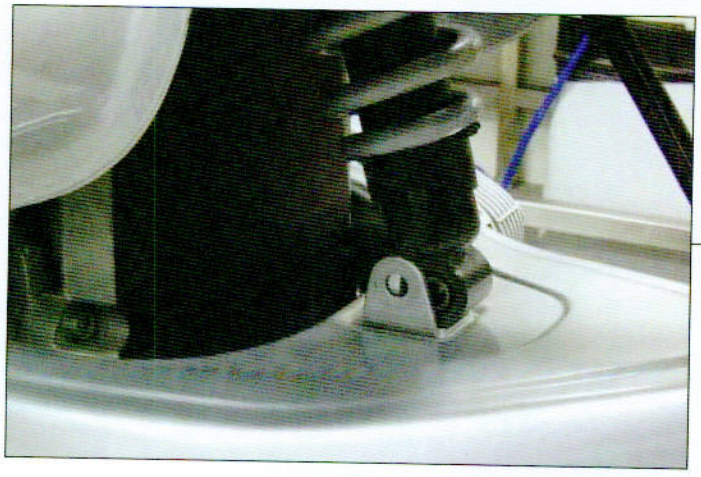


Remove the steel washer and the rubber intermediate washer.

Remove the support under the rear wheel.

Nut and bolt front shock absorber.

Unscrew the nut and bolt at the bottom of the front shock absorber.



1. Remove the shock absorber.

2.

Remove the rubber intermediate washer and the steel bush of the standard front shock absorber!

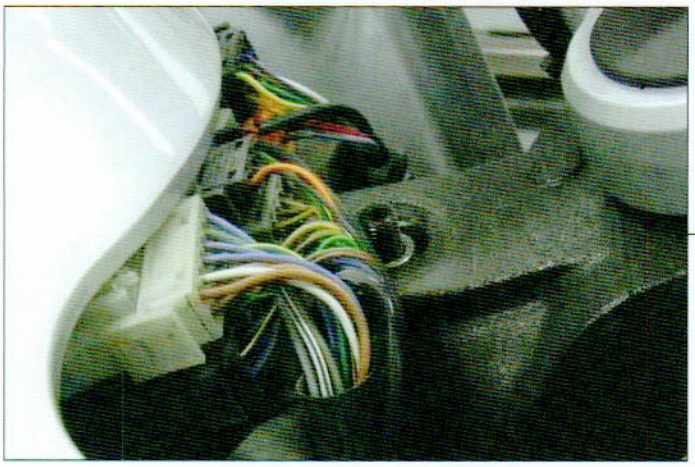
Installing WP EDS front shock absorber

Place the rubber intermediate washer and the steel bush of the standard shock absorber on the threaded end of the WP shock absorber.

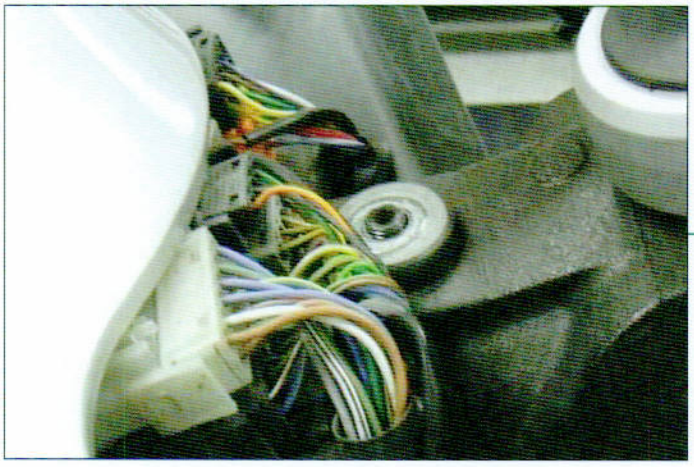
Mount the WP front shock absorber with the plug housing in the driving direction.

Fit the bolt.
Do not tighten completely.

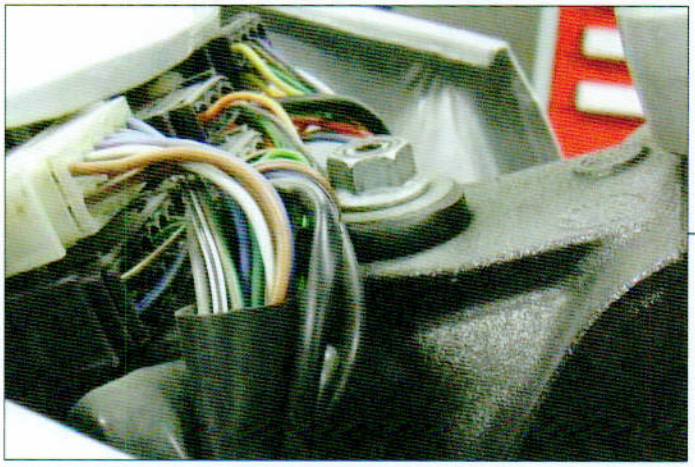
Support the rear wheel.



Ensure that the steel bush of the front shock absorber is placed through the hole of the frame.



Mount the rubber intermediate washer and steel washer on the threaded end of the shock absorber.



Mount the nut on the threaded end of the shock absorber and tighten the nut to a torque of 43Nm.

Fit the nut and bolt at the bottom of the front shock absorber and tighten them to a torque of 50Nm.

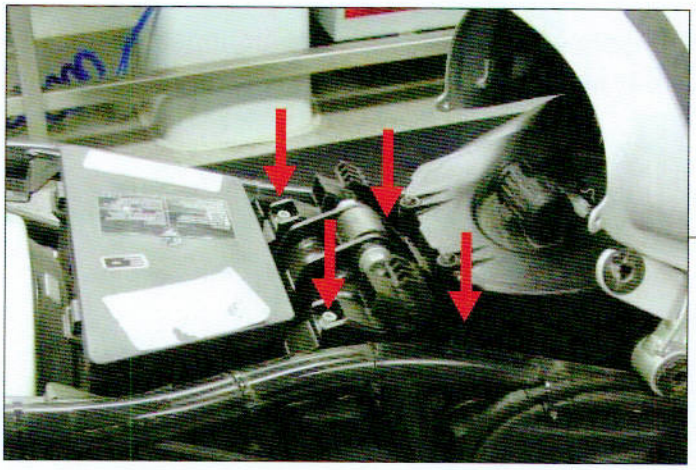
Removing standard rear shock absorber

1. Remove the rear end of the exhaust.

2.

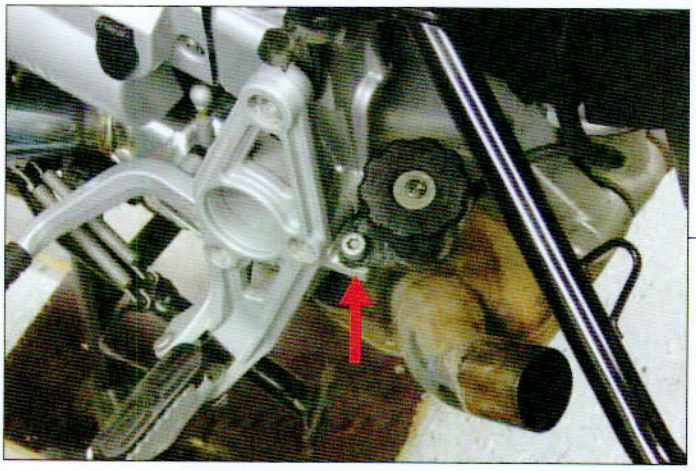
1. Remove the rear wheel.

2.

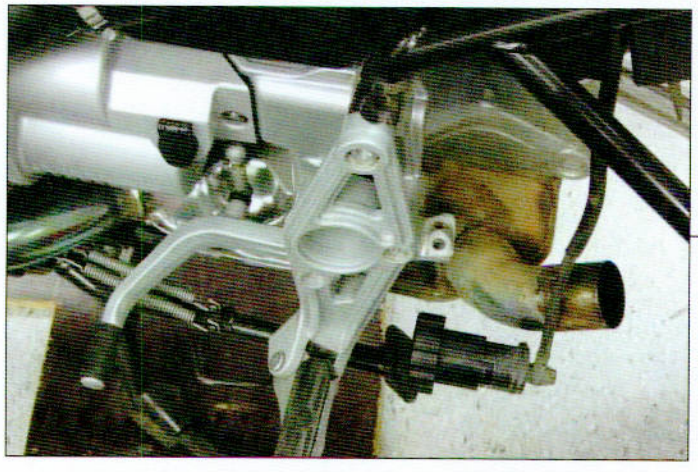


1. Remove the height adjuster of the seat.

2.

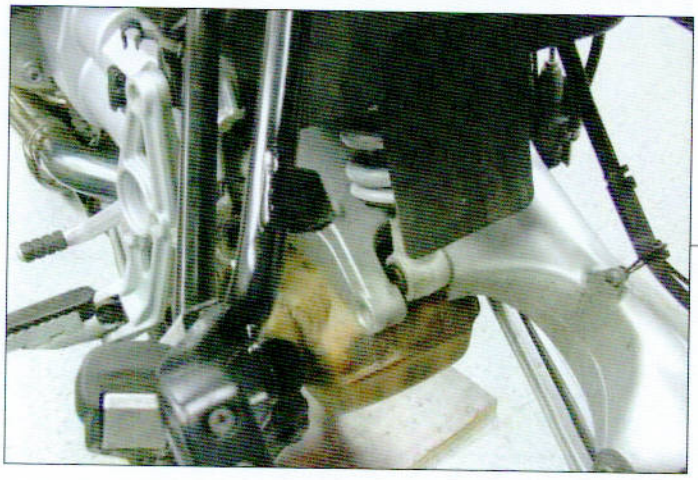


1. Remove the spring preload adjuster.



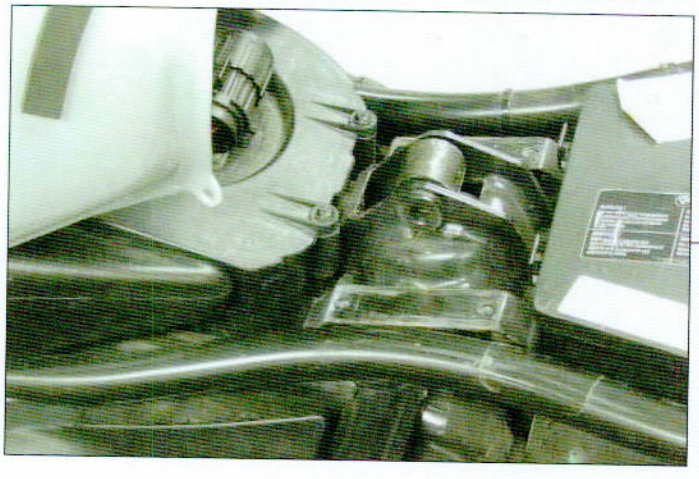
2.

Unscrew the fitted bolt at the bottom of the rear shock absorber.



Remove the fitted bolt and let the swing arm down slowly.

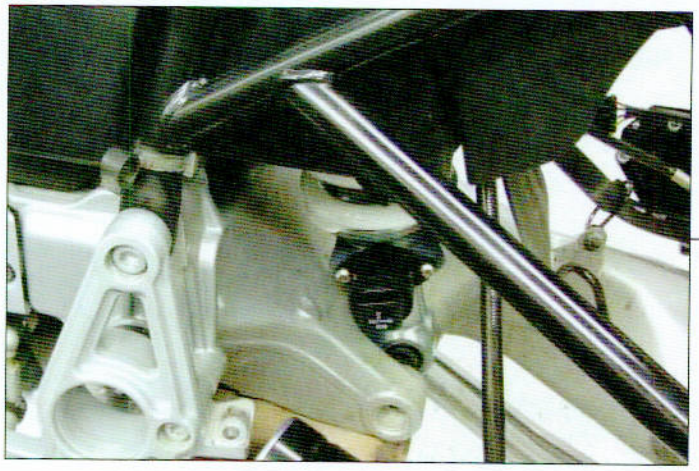
Untighten the upper nut and bolt of the shock absorber.



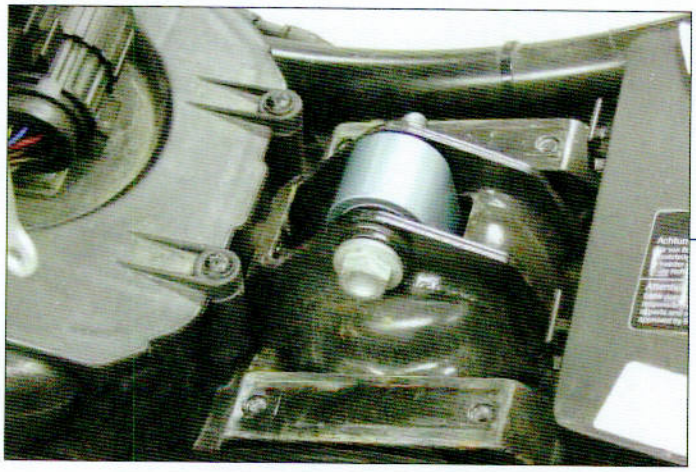
Remove the nut and bolt.

Remove the rear shock absorber.

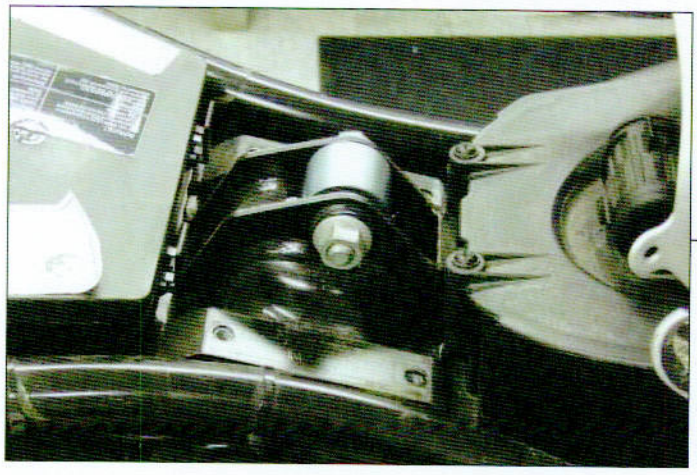
Installing WP EDS shock absorber



Mount the WP EDS rear shock absorber with the plug housing of the rebound adjustment on the left side of the motorcycle.

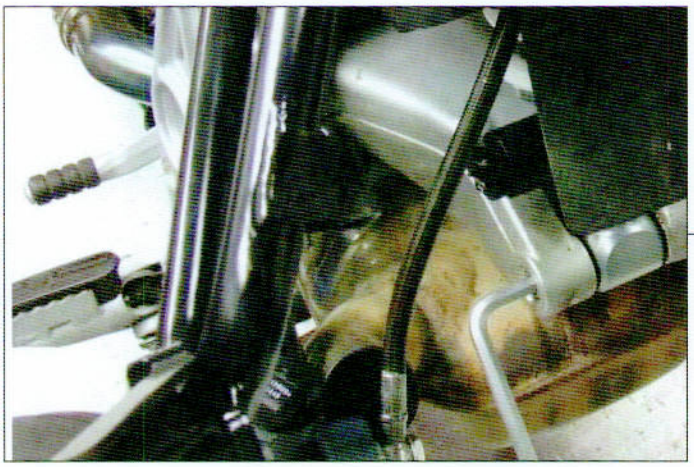


1. Fit the nut and bolt on the upper side of the rear shock absorber.



2. Do not tighten completely!

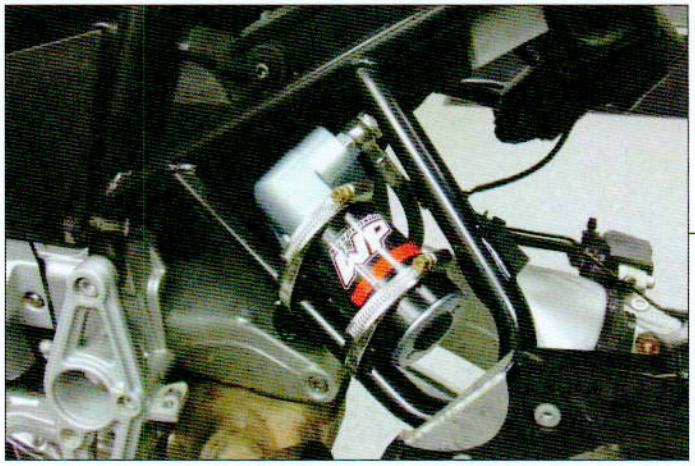
Clean the thread of the fitted bolt properly!
Fit the fitted bolt **with Loctite 243** on the thread of the bolt, at the bottom of the shock absorber.
Do not tighten completely!



Mount the rear wheel!

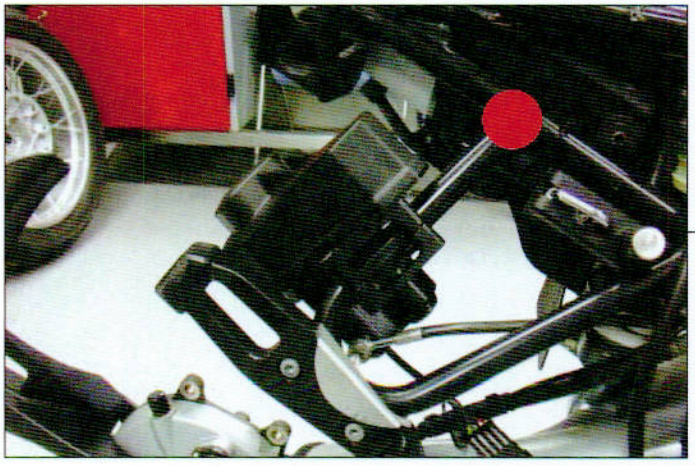
Take the motorcycle off the centre stand!!!
(rear wheel on the ground)
Tighten the fitted bolt to a torque of 58Nm.

Park the motorcycle on the centre stand and remove the rear wheel again!



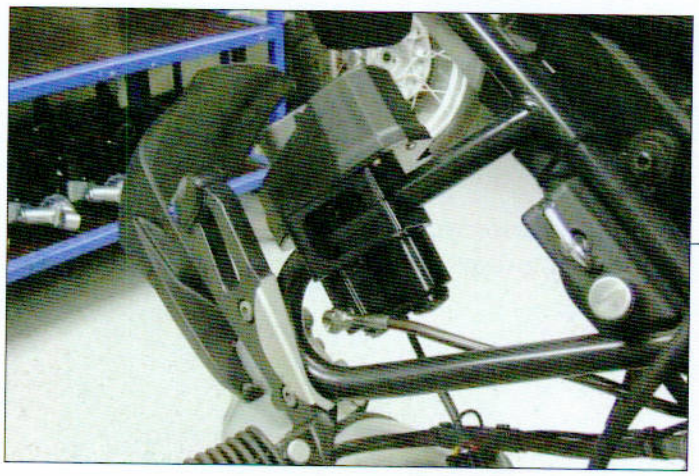
1. Mount the gas pressure reservoir according to the picture, on the left side of the frame with the supplied clamping rings and supports.

2. Make sure the hose cannot be caught between moving parts.



1. Mount the regulator for the spring preload according to the picture, on the right side of the frame.

Correction of picture:
Mount the regulator as close to the weld-seam as possible.
See red dot on the picture.

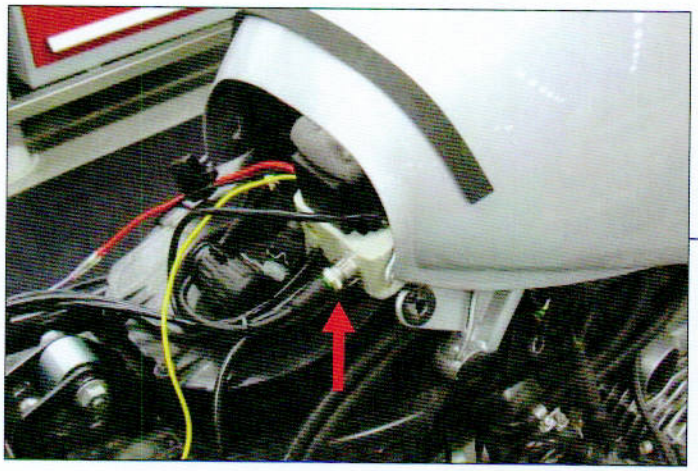


2. Be sure that the hose of the regulator has enough space.
Make sure the hose cannot be caught between moving parts!
Tighten the bracket bolts of the regulator to a torque of 10Nm.

Install the adjustment display...

... with the supplied brackets and socket-head screws M5x10 on the handlebar.
Tighten the socket-head screws to a torque of 6Nm.

Guide the wiring of the EDS system as close as possible to the original wiring and cable harness.
Be sure the wiring has enough space and is not clamped between parts!
Tighten the wiring / cables with the supplied cable binders!



Place the control unit with the relais unit according to the picture at the rear of the fuel tank.

It is advised to use foam to fill the gaps.

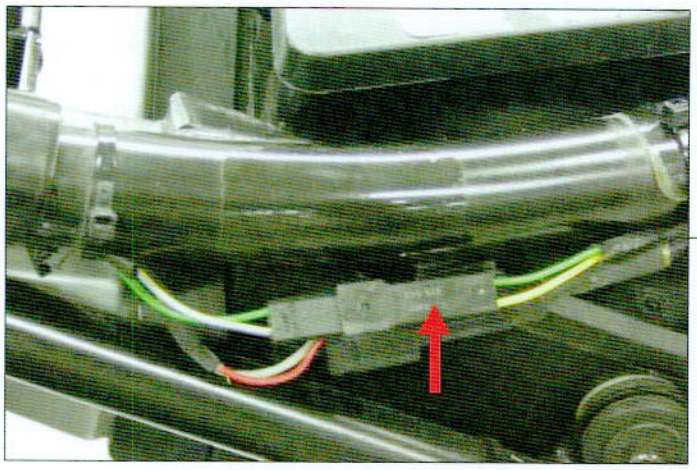
Guide the cable of the adjustment display through the inner side of the fuel tank to the control unit and attach the connector to it, according to the picture above.

Guide the cable "rebound front" from the control unit through the inner side of the fuel tank to the front shock absorber and connect it on the plug housing for the rebound adjustment.
Make sure the plug is correctly locked!
Make sure the cable has enough slack to let the shock absorber extend fully!

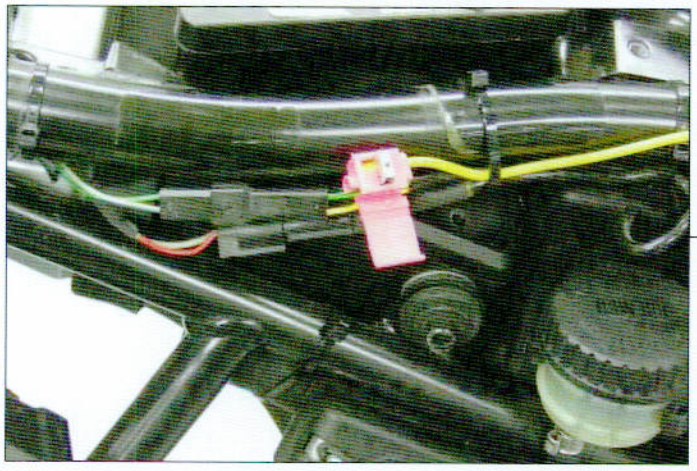
Guide the cable "rebound rear" from the control unit to the rear shock absorber and connect it to the plug housing at the bottom of the shock absorber.
Make sure the plug is correctly locked!
Make sure the cable has enough slack to let the shock absorber extend fully!

Guide the cable "compression rear" from the control unit to the rear shock absorber and connect it on the plug housing of the shock absorber.
Make sure the plug is correctly locked!
Make sure the cable has enough slack to let the shock absorber extend fully!

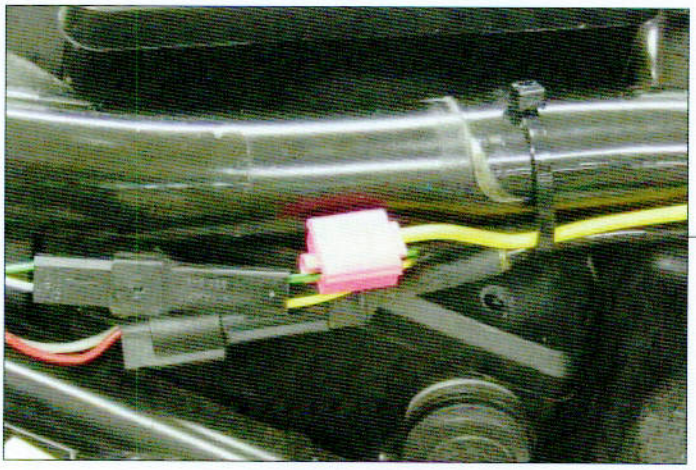
Guide the cable from the control unit to the plug of the regulator for the spring preload and connect it.
Make sure the plug is correctly locked!
Make sure the cable has enough slack to let the shock absorber extend fully!



1. On the right side, level with the brake fluid reservoir, in front of the rear brake, is a connector which is powered whenever the motorbike ignition is switched on.



2. Guide the yellow wire from the relais unit to this connector, connect the yellow wire, with help from the supplied Connector Scotchlok 558 to the right of the connector to the green/black wire.



3.

<u>Test:</u>
Connect the red and black wire from the relais unit on the battery.
Red = "+"
Black = "-"
Switch on your ignition, the adjustment display will light up!

Reassemble the removed parts of the motorcycle in the opposite order!
Consult your BMW repair / service manual.

WARNING!

ONLY ADJUST THE SPRING PRELOAD WITH THE MOTORCYCLE ON THE CENTRE STAND!

1. The adjustment display controls the adjustment of the EDS system. Be aware that changing the settings of the EDS system will change the way your motorcycle handles. Take your time to get used to the different settings of the EDS system.

Switch on the ignition and the entire adjustment display will light up for a system check. After the check up, one of the lights on the left row will blink, depending on the last setting. This light will blink for approx. 15 seconds, you are only able to change the spring preload, using the up and down arrow, during this time. After this time, one of the lights on the right will light up, now you can set your suspension to the desired way you would like your suspension to react. These settings are adjustable at all times.

The laws in some countries state that you must keep your hands on the handlebars at all times! Therefore you should only change these settings while your motorcycle is stationary! Consult the local authority for information!

2. Spring preload settings:

- **Single**
- **Single with luggage**
- **With passenger and luggage**

3. Damping:

C = Comfort

N = Normal

S = Sport

At high temperatures, ± 70° C (for example high air temperatures), it's possible that the EDS system will turn itself off. This is due to the built-in thermal cut-out fuse and the EDS system will automatically function normally again when it has cooled down.

Notes

This document is protected by copyright and may not, in whole or part be stored in a retrieval system, or transmitted in any form or by any means, copied, photocopied, translated or reduced to any machine readable form without prior consent in writing from WP Suspension B.V., The Netherlands.

No liability can be accepted for any inaccuracies or omissions in this publications, although every possible care has be taken to make it as complete and accurate as possible.

WP Suspension B.V., The Netherlands reserves the right to make changes and alter specifcations without prior notice and without incurring an obligation to make such changes to products manufactured previously. See your authorised WP Suspension distributer for the latest information on products inprovements incorporated after this publication.

Al information contained in this publication is based on the latest product information available at the time of publication. Illustrations in this publcations are intended for reference use only and may not depict actual model component parts.

All rights reserved, © 2009 WP Suspension B.V., The Netherlands